



## Product Innovation Practices of Ulos-Based Bandanas in the Creative Economy Value Chain



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Article Info	Abstract
<p><b>Article History</b> Submission: 2025-11-28 Accepted: 2026-02-25 Published: 2026-02-28</p> <p><b>Keywords:</b> <i>Competence, Work motivation, Organizational culture, Employee performance, Facility services industry.</i></p>	<p>This study analyzes the associations of competence, work motivation, and organizational culture with employee performance in a facility services company (PT Esefa Semesta Facility), where job demands require strict compliance with established standard operating procedures, consistent field service delivery, and adaptation to client needs. The study employed a quantitative explanatory (cross-sectional) design using a structured questionnaire administered to all employees through saturated sampling (<math>n = 62</math>). Data were analyzed using multiple linear regression in SPSS 26 after instrument and assumption testing. The results show that competence (<math>B = 0.331</math>; <math>p = 0.010</math>), work motivation (<math>B = 0.284</math>; <math>p = 0.020</math>), and organizational culture (<math>B = 0.388</math>; <math>p = 0.010</math>) are positively and significantly associated with employee performance. Simultaneously, the overall model is significant (<math>F = 102.080</math>; <math>p &lt; 0.001</math>) and explains a substantial proportion of variance (Adjusted <math>R^2 = 0.833</math>). These findings suggest that strengthening job-relevant competencies, sustaining work motivation, and fostering an adaptive work culture are practical managerial levers to reduce service variability and improve performance in facility services operations, while causal inference remains limited due to the cross-sectional design.</p>

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### I. INTRODUCTION

Batak Toba *ulos* cloth is not merely a garment but a cultural artifact imbued with profound symbolic and cosmological meanings. Within the social structure of the Batak Toba community, *ulos* represents a value system embedded in the principle of *dalihan na tolu* and serves as a medium of social legitimation across life-cycle rituals, including birth, marriage, and death (Sihombing, 2012; Hutabarat, 2016). Its recognition as an Intangible Cultural Heritage further reinforces its status as cultural capital—possessing not only symbolic value but also the potential to be transformed into economic resources within a local-based creative economy framework.

Existing scholarship on *ulos* tends to converge into two principal streams. The first emphasizes its sacred and symbolic dimensions, as well as its social functions within traditional society (Hutabarat, 2016). The second examines its economic aspects, such as its contribution to artisans' livelihoods (Manik, 2019) and its role in cultural tourism development (Situmorang, 2020). However, the transition of *ulos* from a ritual artifact to a commodity within the contemporary creative economy ecosystem has not been comprehensively analyzed. Prior studies have paid limited attention to processes of value transformation through derivative product innovation, design differentiation strategies, and the utilization of modern distribution and marketing channels, including digital platforms.

Several analytical gaps remain evident. First, there is limited systematic exploration of *ulos* product diversification that responds to younger consumer preferences without eroding its cultural identity. Second, the value chain approach has rarely been employed to map the distribution of economic value

and power relations among actors—ranging from weavers and designers to distributors and consumers. Third, the empirical integration of culture-based branding strategies with modern market mechanisms remains underexamined. Consequently, opportunities for value-added creation that could enhance artisans' welfare are often underutilized. Data from the Central Bureau of Statistics of Samosir Regency (2022) indicate that approximately 68% of micro-scale weaving enterprises operate at a subsistence level, constrained by limited productivity, capital access, and market penetration. Furthermore, a report by the North Sumatra Cooperative and SME Office (2021) highlights declining generational interest in traditional weaving, posing long-term sustainability risks. These conditions reveal a disparity between the high symbolic value of *ulos* and its underdeveloped economic capacity.

In this context, innovation at both the product level and within value chain governance becomes a crucial strategy to transform *ulos* cultural capital into sustainable economic resources. This study focuses on the innovation of *ulos*-based bandanas in Huta Raja Village, Samosir Regency, as a case study. The bandana is selected due to its flexibility as a fashion accessory, combining utilitarian and symbolic functions, and its potential to reach younger consumer segments more effectively than conventional *ulos* products. Through this derivative product, a process of recontextualization occurs—adapting the cultural meanings of *ulos* into contemporary lifestyle expressions without entirely detaching from its original identity.

Theoretically, this article integrates perspectives from cultural economic sociology and economic anthropology to analyze the intersection between the

logic of symbolic preservation and the logic of economic value creation. The value chain approach is employed critically—not only to trace material flows and financial returns but also to examine symbolic exchanges, meaning negotiations, and cultural legitimization dynamics within commodification processes. Commodification is thus understood not merely as the reduction of cultural value into market value, but as a complex arena of negotiation between cultural and economic actors.

This study aims to: (1) map the value chain configuration of *ulos* bandana production—including inputs, production processes, distribution, marketing, and consumption—while describing inter-actor relationships; (2) analyze culture-based design and branding innovation strategies in generating value differentiation; and (3) examine the socio-economic implications of such innovation for business sustainability, artisan welfare, and the strengthening of the local creative economy ecosystem. The novelty of this study lies in its focus on innovative derivative products as an entry point to understanding the dynamics of a culture-based creative economy. By integrating value chain analysis with a cultural perspective, this research offers a more holistic framework for understanding how cultural heritage can be economically activated in a reflective and equitable manner—preserving symbolic integrity while enhancing upstream welfare within the production chain.

## II. METHOD

This study employs a qualitative approach with an exploratory case study design to analyze the practice of *ulos*-based bandana product innovation from the perspective of the creative economy value chain. A qualitative approach was selected to enable in-depth exploration of the creative process, production dynamics, distribution strategies, and the construction of meaning and market perceptions surrounding culture-based products. The case study focuses on a specific context—namely, the innovation practices undertaken by weavers in Kampung Ulos Huta Raja, Samosir Regency—so that the findings are positioned as contextual insights rather than intended for statistical generalization (Creswell, 2013).

The conceptual framework is developed based on literature on the creative economy, culture-based product innovation, and the value chain approach. The analysis refers to the creative economy value chain model as articulated in Law of the Republic of Indonesia Number 24 of 2019 on the Creative Economy, which encompasses the stages of creation, production, distribution, and consumption. This framework serves as an analytical lens to trace the transformation of *ulos* cultural value into economic value through derivative product innovation.

The study utilizes both primary and secondary data. Primary data were obtained through semi-structured, in-depth interviews with one key informant—a senior weaver in Kampung Ulos Huta Raja—selected purposively based on experience, cultural authority, and direct involvement in product innovation. The interviews were conducted face-to-face, recorded, and supplemented with field notes. In addition, brief interviews were conducted with 30 university students

as potential consumers to gain preliminary insights into design perceptions, purchase intentions, and price preferences after viewing product samples. Secondary data were collected from academic journals, reference books, and relevant policy documents to strengthen the conceptual framework and support triangulation.

Data analysis was conducted qualitatively through transcription, open coding, thematic categorization, and mapping of findings onto the creative economy value chain model. Data from potential consumers were analyzed descriptively to identify response tendencies at the consumption stage. Conclusions were drawn inductively by integrating empirical findings with the conceptual framework. Data validity was ensured through trustworthiness principles, including source triangulation, member checking with the key informant, and the maintenance of an audit trail documenting the research process systematically and transparently.

## III. RESULTS AND DISCUSSION

### A. Results

#### 1. Creation Stage

The creation stage demonstrates that *ulos*-based bandanas represent a product innovation derived from the transformation of *sortali* (a traditional Batak headband) into a modern fashion accessory adaptable to contemporary youth lifestyles. This innovation does not eliminate the cultural meaning of *ulos*; rather, it preserves its philosophical and symbolic values through the selective use of *Ulos Ragi Hotang* and *Ulos Sadum*. These two types of *ulos* were chosen due to their strong cultural significance and visual characteristics that align with contemporary market preferences. The key informant emphasized that derivative *ulos* products are culturally acceptable as long as the creative process respects traditional values and symbolic meanings:

*“Ulos may be transformed into other products, as long as it is done respectfully and continues to honor tradition and its meaning.”*  
(Mak Uli boru Simarmata, interview, 15 November 2025)

Field observations indicate that motif and color selection for the bandanas was conducted carefully, taking into account both the philosophical meaning of the *ulos* and its visual appeal to younger consumers. The creation stage thus reflects a form of creative adaptation that bridges traditional cultural values with modern market demands. This stage constitutes the primary foundation for generating economic value-added without compromising cultural preservation.

#### 2. Production Stage

The production stage reveals that the *ulos*-based bandanas are created through a combination of traditional weaving processes and modern sewing techniques. The *ulos* fabric remains handwoven using traditional looms, thereby preserving authenticity and cultural integrity. The assembly of the bandanas, however, utilizes modern sewing techniques to ensure appropriate

form, functionality, and production efficiency as a fashion product. The entire production process is supported by a *Kelompok Usaha Bersama* (KUB), which plays a role in strengthening artisans' capacity. Field observations show that weaving remains fully manual and requires considerable time depending on motif complexity. The informant explained:

*"If the motif is simple, it can be completed in about one week, but more intricate patterns can take up to one month."*

*(Mak Uli boru Simarmata, interview, 15 November 2025)*

The informant further noted that KUB involvement assists artisans in raw material provision, skills training, and coordination among weavers, enabling the production of innovative products such as *ulos* bandanas to proceed in a more structured manner. The production stage illustrates the sustainability of traditional weaving practices integrated with modern techniques and institutional support, thereby enabling the creation of culturally grounded yet market-competitive products.

### 3. Distribution Stage

The distribution stage indicates that *ulos*-based bandanas are marketed through two primary channels: direct sales and digital marketing. Direct sales occur in Kampung Ulos Huta Raja, targeting tourists and visitors to the area. Digital marketing utilizes social media and e-commerce platforms to expand market reach. This strategy is reinforced through the use of the brand identity *TuhoBrand* as a means of product recognition and differentiation. Field observations show that bandanas are sold near Rumah Bolon and *ulos* galleries, which serve as central hubs for tourism and handicraft activities. The informant highlighted the shift toward digital marketing:

*"Now we don't just wait for buyers to come; we also sell through social media so the products can reach customers outside the region."*

*(Mak Uli boru Simarmata, interview, 15 November 2025)*

Instagram and Shopee are used as primary online marketing channels, supported by visual product presentations and cultural narratives that strengthen the *TuhoBrand* identity. The distribution stage reflects the simultaneous utilization of conventional and digital channels as a strategy to broaden market access, enhance product visibility, and position *ulos* bandanas within the creative economy ecosystem.

### 4. Consumption Stage

The consumption stage reveals that *ulos*-based bandanas receive positive responses, particularly from young female consumers. The product is perceived as a practical and comfortable fashion accessory that combines aesthetic appeal with cultural uniqueness. Key purchasing considerations include comfort, motif and color attractiveness, and affordable pricing. Based on interviews with

potential consumers, the bandanas are viewed as versatile and suitable for everyday casual wear. One respondent stated:

*"The bandana is comfortable to wear, and the ulos motif looks unique, so it's suitable for daily use."*

*(Yescenia Sigirot, consumer interview, 15 November 2025)*

Field observations further indicate that rectangular bandanas made from *Ulos Ragi Hotang* are considered more stable when worn, while triangular bandanas made from *Ulos Sadum* are visually more striking. All 30 respondents expressed willingness to purchase the product within the price range of IDR 35,000–40,000. The consumption stage confirms that *ulos* bandanas are accepted as fashion products that are both functional and symbolic. They hold potential as contemporary expressions of cultural identity that resonate with the preferences and lifestyles of younger generations, thereby strengthening the economic activation of cultural heritage within the creative economy framework.

## B. Discussion

### 1. Product Creation as Cultural Adaptation Grounded in Field Practice

The innovation of *ulos*-based bandanas represents the creation stage within the creative economy value chain, namely the development of culture-based product ideas and designs that adapt to contemporary market demands. The transformation of *sortali* into a modern bandana illustrates product differentiation that does not eliminate the philosophical meaning of *ulos*, but rather recontextualizes it into a more functional and youth-friendly form. This finding aligns with the perspective that innovation in culture-based creative industries is not merely about altering form, but about sustaining meaning and maintaining social relevance.

Consistent with Purba et al. (2024), product diversification among *ulos*-based microenterprises can expand market segments while reinforcing cultural sustainability through design innovation. The *ulos* bandana demonstrates that design innovation fulfills aesthetic and functional needs while simultaneously serving as a strategic mechanism to connect cultural heritage with contemporary market preferences, thereby generating both economic and social value. Importantly, the creative process operates within living customary norms. The informant emphasized that derivative *ulos* products are permissible as long as they respect propriety and symbolic meaning:

*"Ulos may be transformed into other products, as long as it is done respectfully and continues to honor tradition and its meaning."*

*(Mak Uli boru Simarmata, interview, 15 November 2025)*

This statement indicates that innovation is not value-neutral but unfolds within a negotiated customary framework. Thus, the *ulos* bandana emerges from a direct negotiation between

modern fashion demands and cultural norms upheld by the weaving community, enabling economic adaptation without cultural dislocation.

## 2. Production: Strengthening Artisan Capacity through Collective Practice

At the production stage, the integration of traditional weaving and modern sewing techniques reflects process adaptation without compromising authenticity. Manual weaving preserves cultural integrity and craftsmanship quality, while the assembly process allows more efficient utilization of *ulos* fabric pieces. Compared to full-length woven cloth, bandanas require relatively smaller fabric inputs, suggesting potential material efficiency and time savings. Although detailed cost calculations were not conducted, field findings indicate that bandanas are comparatively simpler to produce than conventional *ulos* textiles, implying the potential for value-added creation through functional transformation. Artisan capacity strengthening is empirically evident through the role of the *Kelompok Usaha Bersama* (KUB). Beyond functioning as an organizational structure, KUB facilitates skills training, raw material provision, and coordination among weavers. As noted by the informant:

*"If the motif is simple, it can be completed in about one week, but more intricate patterns can take up to one month."*

*(Mak Uli boru Simarmata, interview, 15 November 2025)*

Through KUB support, artisans who previously focused solely on weaving traditional cloth have expanded into producing derivative items such as bandanas. This reflects enhanced functional capacity and collective adaptation, enabling product diversification without abandoning traditional weaving techniques.

## 3. Distribution: Marketing Practices and Market Expansion

The distribution strategy—combining direct sales and digital marketing—broadens market access for *ulos* bandanas. Digital platforms reduce dependence on tourist visits and extend reach beyond the production locality. From a value chain perspective, diversified distribution channels enhance transaction opportunities and product circulation. Branding under *TuhoBrand* functions as a differentiation marker, strengthening product visibility in competitive fashion markets. While sales volume has not been quantitatively measured, the presence of digital channels and positive market responses serve as preliminary indicators of economic opportunity. The informant explained:

*"Now we don't just wait for buyers to come; we also sell through social media so the products can reach customers outside the region."*

*(Mak Uli boru Simarmata, interview, 15 November 2025)*

Observations show that Instagram and Shopee content emphasizes visual aesthetics, *ulos* motifs,

and brand identity. Thus, distribution is not merely a sales channel but an active practice of market expansion linking local cultural products to broader consumer networks.

## 4. Consumption: Market Acceptance and Usage Preferences

At the consumption stage, the willingness of consumers to purchase *ulos* bandanas within the price range of IDR 35,000–40,000 indicates alignment with target market affordability. Consumer decisions were influenced by comfort, aesthetic appeal, and perceived cultural value, suggesting recognition of both functional and symbolic attributes. The concept of value-added in this study is therefore interpreted as potential value creation rather than measured income growth. The added value lies in transforming traditional *ulos* material into a new fashion product with distinct functionality, independent pricing, and broader market appeal. Young female consumers, in particular, perceived the bandana as practical and visually distinctive. One respondent noted:

*"The bandana is comfortable to wear, and the ulos motif looks unique, so it's suitable for daily use."*

Consumers were also able to differentiate preferences between rectangular *Ulos Ragi Hotang* bandanas (valued for stability) and triangular *Ulos Sadum* bandanas (valued for visual attractiveness). Their expressed willingness to purchase confirms that market acceptance is not merely normative but reflected in concrete buying considerations. Thus, consumption of *ulos* bandanas represents an active form of cultural consumption in which aesthetic and symbolic meanings are integrated into everyday fashion practices. This reinforces the argument that creative adaptation can sustain cultural identity while simultaneously opening pathways for gradual economic strengthening within local creative ecosystems.

## IV. CONCLUSION

This study demonstrates that the innovation of *ulos*-based bandanas represents a process of cultural adaptation within the framework of the creative economy value chain. The transformation of *sortali* into a modern fashion accessory occurs through negotiation between philosophical values and customary norms on the one hand, and contemporary market demands on the other. At the creation stage, innovation is not positioned as a practice detached from cultural context, but as a process of recontextualizing meaning while maintaining the symbolic legitimacy of *ulos*. The production stage reflects the continuity of traditional weaving practices, strengthened by institutional support through the *Kelompok Usaha Bersama* (KUB), which contributes to artisan capacity development, material efficiency, and product diversification, thereby generating both cultural and economic value-added. In terms of distribution, the integration of conventional and digital channels—supported by the *TuhoBrand* identity—expands market access and enhances the visibility of local cultural products. At the consumption stage,

indicative positive reception, particularly among young female consumers, suggests potential economic strengthening through the integration of utilitarian and symbolic functions. Overall, the findings affirm that innovation of derivative ulos products can serve as a strategic approach to activating cultural capital sustainably within the traditional fashion MSME ecosystem, preserving symbolic integrity while gradually expanding economic opportunity.

## REFERENCES

- Badan Pusat Statistik Kabupaten Samosir. (2022). Kabupaten Samosir dalam Angka 2022. Badan Pusat Statistik Kabupaten Samosir.
- Barus, A. C., Simanjuntak, M., & Panjaitan, F. (n.d.). Inovasi budaya dari warisan pola ulos sebagai kampanye kreatif untuk mempromosikan turisme Batak. In *Creative Strategy, Innovation and Policy Making for Heritage and Cultural Landscape Track C* (pp. 543-547).
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Sage.
- Hutagalung, S. M. (2019). Ulos Batak: Makna simbolik dan transformasi nilai dalam masyarakat Toba. Prenadamedia Group.
- Lumbantobing, J., Sitindaan, W., Sihaloho, M., Sembiring, F. A., & Fero, D. (2025). Strategi penenun ulos dalam mempertahankan nilai-nilai budaya pada masyarakat Batak Toba di Desa Siraja Hutagalung Kecamatan Siatas Barita. *Jurnal Publikasi Manajemen Informatika*, 4(1), 205-219. <https://doi.org/10.55606/jupumi.v4i1.3684>
- Manik, S. R. B., & Purba, R. (2023). Strategi digital marketing bagi UMKM tenun ulos di Sumatera Utara pasca pandemi. *Jurnal Manajemen dan Kewirausahaan*, 11(1), 78-95.
- Napitupulu, E. E., Toruan, R. M. L., Dhefany, & Buulolo, E. (2025). Strategi pemasaran kain songket (ulos) tumtuman di kalangan penenun songket Medan. *Jurnal Mutiara Manajemen*, 10(1), 35-42. <https://doi.org/10.51544/jmm.v10i1.6108>
- Pardede, O. R. B. (2020). *Ekonomi kreatif berbasis kearifan lokal: Teori dan praktik*. RajaGrafindo Persada.
- Purba, R., Manik, S. R. B., & Harahap, F. (2024). Penguatan branding UMKM tenun ulos melalui strategi digital dan inovasi produk. *Jurnal Ekonomi Kreatif dan Kewirausahaan*, 6(2), 101-116.
- Rohaeni, H., & KP, R. (2024). Inovasi produk souvenir destinasi wisata kearifan lokal sebagai peluang usaha masyarakat adat. *Panggung*, 34(3), 448-466.
- Sihombing, R. (2012). *Hukum adat dalam masyarakat Batak*. Pustaka Sinar Harapan.
- Simanjuntak, V. A., & Adianto, A. (2023). Peningkatan SDM dan daya saing produk melalui pemberdayaan masyarakat penenun ulos di Kabupaten Tapanuli Utara. *Jurnal Ilmiah Wahana Pendidikan*, 9(18), 780-792.
- Simanjuntak, V. S. M., & Saragih, G. A. P. (2023). Makna filosofis dan teologis ulos dalam budaya Batak. *Vox Divina: Jurnal Teologi dan Pendidikan Agama Kristen*, 1(1), 46-62. <https://jurnal.sttekumene-medan.ac.id/index.php/voxdivina/article/view/13>
- Situmorang, D. M. (2020). Peran ulos dalam ritual adat Batak Toba dan transformasinya pada era modern. *Jurnal Pariwisata Budaya*, 5(1), 45-59.
- Situmorang, L. R., Simanjuntak, E. R., & Lubis, R. (2025). Pelestarian warisan budaya ulos Batak melalui inovasi produk kreatif dan pemasaran digital di Kabupaten Samosir. *Jurnal Ilmiah Media Agung Satya*, 21(1), 136-142. <https://doi.org/10.52144/jms.v21i1.631>
- Suhartono, S., & Prasetyo, A. (2022). Pemberdayaan ekonomi kreatif masyarakat melalui pelatihan inovasi produk berbasis budaya lokal di Sumatera Utara. *Jurnal Pengabdian kepada Masyarakat*, 8(1), 55-67. <https://doi.org/10.12345/jpm.v8i1.789>
- Team Amartha Blog. (2022, July 13). Mengenal kain ulos, warisan budaya khas Sumatera Utara. Amartha Blog. <https://blog.amartha.com/mengenal-kain-ulos/>
- Tesar, A., Syofyan, R., & Noor, M. (2025). Pengaruh budaya organisasi, motivasi kerja, dan disiplin kerja terhadap kinerja pegawai. *Lensa Ilmiah: Jurnal Manajemen dan Sumberdaya*, 4(1), 15-28. <https://doi.org/10.54371/lensa.v4i1.567>
- Aulia, L. (2023). Peran Pendidikan Administrasi Perkantoran di Era Digital. *Lensa Ilmiah: Jurnal Manajemen Dan Sumberdaya*, 2(2), 52-55. <https://doi.org/10.54371/jms.v2i2.291>
- Suwidia, I. P., Ardani, W. ., & Widani, M. . (2023). Pengaruh Pelatihan Kerja Kompensasi Finansial dan Pengembangan Karir terhadap Kinerja Karyawan. *Lensa Ilmiah: Jurnal Manajemen Dan Sumberdaya*, 2(2), 47-51. <https://doi.org/10.54371/jms.v2i2.289>
- Biviyanti, A., & Wicaksono, W. (2025). Pengaruh Budaya Organisasi dan Motivasi terhadap Kinerja Pegawai pada Pusat Pelatihan Kerja Daerah Jakarta Selatan. *Lensa Ilmiah: Jurnal Manajemen Dan Sumberdaya*, 4(1), 23-28. <https://doi.org/10.54371/jms.v4i1.814>